

The graphic features two large orange arrows pointing towards each other, framing the text. The top arrow points right and the bottom arrow points left, meeting at the center where the text is located.

Nevada Department of Agriculture

# Pest Alert

## FORMOSAN TERMITES and INFESTED BARK MULCH: URBAN MYTH or FACT?

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Recently a flurry of stories on the internet contained warnings about bark mulch from Louisiana. The warnings focused on the “fact” that as areas are cleaned up after Hurricanes Rita and Katrina, thousands of downed trees and scrap wood infested with Formosan termites were being chipped and sold around the country as mulch. The warnings went on to name two large chain home improvement stores as the recipients of this “infested” mulch – they even went so far as to suggest that consumers should avoid buying mulch from the stores.

### **Fact or fiction? Read on.**

The first clue to unraveling the myth is that none of the so-called alerts came from USDA or state departments of agriculture, the traditional source of official regulatory information. Instead, they came from “unnamed sources” and multiplied over the internet like, well, termites. Let’s look at the facts.

***Louisiana Department of Agriculture had already taken steps to prevent the movement of infested material from the state.*** In October of 2005 the Louisiana Department of Agriculture and Forestry established a quarantine to prevent the movement of Formosan termites or infested materials. That department recently released the following statement:

*“The Louisiana Department of Agriculture and Forestry, Office of Agricultural and Environmental Sciences, has quarantines in place in the Hurricane Katrina and Hurricane Rita affected parishes of Calcasieu, Cameron, Jefferson, Jefferson Davis, Orleans, Plaquemines, St. Bernard, St. Charles, St. John, St. Tammany, Tangipahoa and Washington.*

*All woody debris in the quarantined areas is going to an approved landfill within the designated quarantine area. There are a multitude of government (state and federal) agencies that are looking at this debris every day as it is deposited into these landfills. The contractors mulching and hauling the debris know the regulations and are abiding by them according to the quarantine requirements.*

*If there is anyone with knowledge of debris moving out of a quarantine area, they should contact our 24-hour hotline @ 225-925-3763. **These are serious allegations and will be taken seriously.***

The two chain stores named on the internet as being recipients of the “infested” bark mulch have both issued statements verifying that they have not and do not intend to sell bark mulch from infested areas. The Louisiana Department of Agriculture and Forestry has investigated these claims and have found them to be unwarranted.

***Knowledge of termite biology unravels the myth.***

It is highly unlikely that Formosan termites will survive the chipping and packaging process. The chipping/mulching process would break up any above-ground colony and the heat created would kill most individuals, or if the mulch was fine enough physically kill them. *This would also physically separate the subterranean part of the colony from the soil which they depend on most of the time.*

The bagging process and storage of bagged mulch is normally not conducive to the survival of many insects including termites due to temperature and humidity fluctuations (both high and low) often over extended periods of time. Bulk shipments may present some issues, but again having the right conditions for survival are minimal for this species.

The act of spreading mulch in the landscape would also breakup any colonies present and expose it to predators and the elements. The colony would also have to find a new source of food and move to it, not an easy task.

***It takes a village – of termites, that is.***

Formosan termites might possibly spread long distances by two methods: 1) The transportation of viable colonies and the re-establishment at a new location. With this species this is most likely through solid wood such as landscape timbers (railroad ties), infested trees or larger portions of these and possibly potted plants. 2) Transportation of mated pairs; in establishing a new colony, a king and queen mate and find a suitable habitat to start a colony. This is the most vulnerable time in a colonies life and although there aren't exact numbers, most if not all colonies will fail at this point. Small newly-formed colonies would be even more susceptible to the above disruptions.

This insect is a tropical/subtropical insect and has rather specific temperature and moisture requirements for survival and reproduction. In Nevada's case the biggest limiting factor would be that this insect is **not** known to occur north of 35 degrees N latitude (this is the southern tip of Nevada).

***Too hot, too cold, too dry? Maybe, maybe not.***

A comment has been made that these insects may “adapt” to our area; this is a very long process and requires an adjacent established population to happen. Finding microclimates in Nevada to survive is a remote possibility with this species, but spreading from those microclimates is another barrier that the insect would have to overcome. Extremes in heat and low humidity would also limit its ability to survive here. Las Vegas, at 36 degrees N latitude, would be very marginal for survival.

With all these hurdles to overcome, including a closely-regulated quarantine, the threat of Formosan termites being brought into Nevada in mulch is negligible if not non-existent. However, in all cases the Department will continue to be watchful for this and other material that might be being moved into Nevada in violation of any state or Federal quarantine.

***For more information:***

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